

TWIN CITY ATARI INTEREST GROUP NEWSLETTER

December 1982

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NOVEMBER MEETING NOTES By TRB (Filling in For Mike D.)

The November meeting turnout appeared to be the largest so far. This isn't surprising, considering that TAIG has now grown to over 250 members.

Guess what, it is swap meet time again. The response was so good towards our last swap meet that it has been decided to hold another one again before the January meeting. Same time (5:00 to 7:00) and same place (in the meeting room.)

A number of keyboards are out now for the ATARI 400, ranging in cost from \$100 to \$220. Two basic types of keyboards are available. One type physically replaces your existing membrane keyboard via installation in the unit. The other keyboard attaches to the 400 with a cable. I personally prefer the latter, since that gives you the option of picking what keyboard your kids or company pound and pour Coke on.

Know of several people who have installed the new 48K upgrade for the ATARI 400 in the past month. This is Dynamic Technologies' \$110.00 expansion kit which appears simple to install and apparently works like a charm.

ANALOG Magazine Offer

There is an offer from ANALOG magazine to ATARI user group members for a subscription of 6 issues (1 year) for \$10. This is \$2 off the standard price. If the group can scrounge up at least 10 subscribers it will receive a disk media subscription for free! At the present time we have 6, which means we need 4 more. Should the free disk be awarded to the club it will of course be available to those (and only those) who have subscriptions at club meetings.

However, your order must be received BEFORE the 29th of Dec. Call Steve Crowley 944-6399.

EDUCATION by Bill Nordstrom

On October 17, 1982 the first meeting of the Education Special Interest Group (ESIG) of the Twin City Atari Interest Group (TAIG) was held at Holy Name of Medina Elementary School. In attendance were 18 people. They were from elementary schools, junior high schools, senior high schools, courseware manufacturers, MECC, and those interested in home education. The goals of the ESIG were discussed and a document entitled "Statement of Purpose" was drafted. This document is now available. The first project to be undertaken by the ESIG is a catalog of available courseware for the ATARI home computers. Jeanette Walsh has "volunteered" to coordinate this effort. Already, the catalog contains over 200 topics. The catalog will identify the following items: - Evaluate programs educational value - Evaluate programs ability to hold the student's interest - Evaluate programs overall quality - Evaluate quality of documentation - Identify owners of each program - Cost - Hardware required - Manufacture - Grade level - Give a short description of the program. The second project the group has undertaken is to catalog companies which are involved in developing courseware (educational software) for all home computers. The catalog will contain all companies involved in writing courseware, regardless of which computer their courseware runs on. The catalog identifies the name of the company, address, telephone number, and which computers their courseware is for. Jeanette has also undertaken the coordination of this project. The first release of the catalogs will be made at the next ESIG meeting. Anyone interested in obtaining a copy contact Bill Nordstrom. We have also been in contact with the educational group in the Michigan and the Eugene Or. users groups and they are going to assist in these projects. The second part of the meeting consisted of the staff at Holy Name presenting their experiences in computer selection, use of computers for computeraided instruction (CAI), and computer literacy. Some very interesting discussions on the meaning of computer literacy, use of computer for teaching programming, and other topics were participated in. The meeting concluded with Bill Heck, president of JMH Software of Minnesota and computer coordinator at Robbinsdale, demonstrating some new ware they have available. Other ATARI systems were available for attendees to try the schools' courseware. On behalf of ESIG I would like to thank Sister Sharon, principal of Holy Name, for hosting this meeting. The next meeting will be held at the Shakopee Senior High on Wednesday, December 15th, at 7:00 PM. The school is located at the intersection of 10th Ave. and Lewis St. Bill Heck will conduct a tutorial on "What Features Make Courseware Effective". Jan Kieber and Jerry Martinson will also discuss their efforts in the areas of CAI and computer literacy. Anyone interested in participating in the ESIG, contact Bill Nordstrom at 475-1475 (home) or 937-4014 (work).

NEWS FROM THE LIBRARY

The following programs have been put into this month's disk, #14.

CHARLIE.PIC	PRINTER PICTURE OF CHARLIE BROWN
DRAGMAZE	CAN YOU ESCAPE THE MAZE?
ERTHWAK	SIMULATES AN ERTHWAK
HAMURABI	CLASSIC ECONOMIC GAME
HEXADEC	HEX CONVERTER
KEYBOARD.MUS	USE THE KEYBOARD FOR MUSIC
LABEL.DSK	CREATE DISK LABELS FOR DISK PAGES
MONOPOLY	CLASSIC GAME ON THE COMPUTER
ROCKET	WATCH A ROCKET BLAST OFF
STNIC.PIC	PRINTER PICTURE OF ST. NICHOLAS
SIMON	YET ANOTHER VERSION OF SIMON
TAXMAN	CAN YOU KEEP MORE MONEY?
WUMPUS	HUNT THE WUMPUS (AGAIN)

As far as the cassette for this month goes, I plan on all of the programs except the printing programs; Charlie.pic and StNic.pic. The reason for this is that I think if you can't afford a disk drive then you can't afford an 80 column printer. However, if by chance one of you cassette users has a printer then I would be more than glad to give you the program provided you ask for it. As far as I can tell, the Stnic needs 132 columns so you better print it in condensed mode if you don't have a 132 column beast. I really don't know about the Charlie picture.

I was a little disappointed in the sales of our cassettes last meeting. Accordingly, I will not be making as much as I did the last time. We have about 20 left over so they will be for sale at the next meeting. Also, I was disappointed in the quality of the program loads. I really thought it would be better than it turned out to be. So, I am going to try making them with another technique and hope it works better. Those of you who have programs that wouldn't load please send in your cassette and name (and so forth) to me or Wayne Vasel, 12114 Crooked Lake Blvd., Coon Rapids, MN 55433. My address is Phil Seifert, 48 Kelley Road, Chaska, MN 55318.

I would like to remind the old members about (and tell the new members) our library distribution procedures. 1, you can buy a disk of the month at the meetings for \$4.00. We usually have a limited amount of the back issues available then also. There will be about 20 cassettes with most of the same programs for sale at \$3.00 each. There will be no past issues except for what I have left over from the previous month. 2, either Wayne or myself will also distribute programs individually at the meetings. This is usually done after the demo part of our meeting. 3, for those of you who can't wait for that, you can give me an order to fill out and we will try to do them as fast as our free time will allow. These you can pick up at the next meeting or if you include a dollar for postage then we will mail them back. Also provide the media, a manila envelope, and a list of the programs wanted. There is a standing limit of ten programs per month for cassettes. I should be getting a new helper fairly soon so that should speed up some matters. See you on Jan 2.

DISK ARCHIVING by TRB

I decided to talk briefly this month about bad sectors, duplicate sectors, and what I tend to call Sort-Of-Bad (SOB) sectors after receiving a number of phone calls from England on this matter. Apparently, ATARI software is quite expensive in England (\$150 for Choplifter, etc.) so people over there are quite concerned with backing up their software; hence thier calls. I will try to explain this in laymans terms, since that is the way I think anyway.

The best way to think of a sector is that it is a small area on the disk that contains 128 bytes of user information and several bytes of disk information. The disk info is used by the disk drive to tell what sector number it is looking at and to checksum the data. A Checksum is a simple means of quickly checking to see if data has been accidentally modified. By adding together all of the bytes of data in a sector and then comparing this value against the checksum value (calculated when the data was stored), the disk drive can tell whether data has gotten scrambled. This reading and writing of the disk information is completely controlled by the 810's microprocessor and ROM instructions.

A bad sector (found on disks that go clunk when they boot up) is simply a sector that doesnt exist on the disk. It was either not formatted in the first place or was formatted, but the sector number info was changed so that the 810 thinks it is a different sector number. In any case, the 810 will not find the sector on the disk and after scanning back and forth a bit trying to find the sector (that is what the clunk is) it will return an error code to the computer. A game program will be set up to expect this code to be returned and if it doesn't see it, the program will usually crash, go out and format the copied disk, or something else equally as nasty. Duplicate sectors are sectors created by renaming 2 or more consecutive sectors on a disk to the same number. If a disk has double sectors on it, the game will expect to be able to read two sector 18s for example, and obtain different data each time it reads the sector. Games that use this protection scheme usually load in quiet (no clunk), but can be easily identified when a copy of the game starts loading in fine, but gets to one point and then just seems to read the same sector over and over. SOB sectors are usually the trickiest to work with, because they have the characteristic of a quiet read-in, but the computer is told the sector is bad. Also, data is actually read in to the computers memory. This type of sector is originally created with a bad checksum value; hence a checksum error is returned even though the data is good. The game program will be expecting both the data as well as the checksum error.

I hope that this information has been of some use. Next month I will discuss how to work around the three types of protection methods described above. Please keep in mind that there is no way to create these types of bad or duplicate sectors through software. A hardware modification of the 810 is required (replacing the microprocessors' instruction set) to do so. Some companies claim that thier software will write bad sectors, but they will require you to pull out a screwdriver and fiddle with your disk drive speed to write a sector slower or faster than normal. This sometimes works but only on some peoples' drives and only for games that expect missing (bad) sectors. Two programs, SUPERCLONE and REPLICA 1+1, operate using this feature (so the English tell me,) so be warned.

CHILDREN WILL PLAY
by Phil Seifert

It is about time all the new programs are coming out. I nearly went catatonic. However, the release of David's Midnight Magic saved me. This is one heck of a pinball game. I would recommend it to anyone until I see the new Sublogic pinball for the Atari. What, Sublogic doesn't write Atari software you say? Well, they did decide to translate their pinball called Night Mission. Hopefully it will be as good as the Apple version but with better sound effects. I do get a little tired of these apple translations with apple sounds on my Atari.

Midnight Magic wasn't the only thing that pulled me through. I finally got around to buying Bandits. Why did I take so long?!! It is more enjoyable than Threshold and believe me, I like Threshold. Bandits is based on the arcade game called Stratovox and it has decent graphics. This is the first Sirius Software program I liked. Go check it out.

I wish I could say the same for Gorf from Roklan. I am very disappointed in it. However, somebody might find some redeeming value in it. What I can't understand is why they limited the disk version of the game to 24k. I know their cartridge will be 16k but I think they could have done better for the disk. If you must buy this program, wait until the cartridge is out.

I had a chance to see Baja Buggies the other day. It reminds me a little of the arcade game called Turbo. This was a very interesting program and I plan on getting it sometime. Baja Buggies is from Gamestar. They also have a football game called Starbowl. I definitely will get this one when I can. It differs from Cypher Bowl by horizontal scrolling instead of vertical. The players remind me a little bit of Mattel's (who said that?) Football game. I believe both programs retail around \$30.00.

At the last meeting we saw a demo of a program from Thorn EMI called Jumbo Jet Pilot. It wasn't the greatest flight simulation but then again it is the only realtime graphic simulator around. I wish Sublogic would translate theirs. It would be a big seller. Jumbo Jet Pilot is on a 16k cartridge and retails for \$50.00. There is another program from Thorn that I would prefer. It is Submarine Commander. This is also a 16k cartridge and sells for \$50.00. In this game you are in command of sub whose mission is to clear the Mediterranean of enemy ships. This one I think will be a classic along with Star Raiders and Pac Man.

Besides David's Midnight Magic, Broderbund has released a lot of other games for the Atari; Stellar Shuttle, Genetic Drift, Seafox, and Labyrinth. Stellar Shuttle is not one of those that I would rush out and buy. The game is very simplistic and I would only recommend it to children. The same applies to Genetic Drift. These two programs, to me, look like they were published just to pad the market with Broderbund's name. I really didn't expect this type of programming from them. Seafox is a little more interesting but I would still not snap it off the shelves. Look at it and see if you like it first. I have no details on Labyrinth yet as it has not hit the local stores. Broderbund has announced they will release Star Blazer and Deadly Secrets fairly soon for the Atari. Stay tuned for the details on these programs.

I recently acquired Meteor Storm from Royal Software. This game is very similar to Stellar shuttle but I think it is more interesting. At least it has better sound effects. I understand this was written some members of the ACE of Eugene group. I hope these people keep writing programs.

I just found out about (and purchased) Defender and Galaxian at Target. Right now they are the only ones in town that I know are selling these 16k cartridges from Atari. Both retail for \$40.00 but Target was having a sale on them. Galaxian is pretty much like the other version of the game called Galactic Chase from Spectrum. If you have just enough money to purchase one, get the Defender. It has lots of little things that explode and go bump in the night. This game was well done for a 16k program. Incidentally, these programs look identical to the same games they are selling for the Atari 5200 game system, so if you have seen the ads for these, that is what they look like.

From what I hear, Scott Adam's new graphic versions of his adventures are super. Hopefully by the next meeting I will get a chance to see one of them. These adventures are selling for \$40.00 a piece. If you have a votrax voice synthesizer, then you can listen to the program talk to besides watching the pictures. If anyone out there has a votrax let me know if I can try it out.

Lastly, I want to talk about something near and dear to my heart, money. I don't like the fact that all the major software companies have raised their basic price from \$29.95 to \$34.95. I can understand why they had to do it but that doesn't mean I have to like it. It must cost a fortune to figure out these new protection schemes. But when some of them don't work on the original disks then enough is enough. I'll see you at the meeting on Jan. 2.

FROM THE EDITOR

Well, we are back to sending the newsletter out first class, I hear. This gives me a little more breathing room on getting the photocopy to the printers, but I am retaining the 5th of the month deadline for articles and ads (did I hear Phil say slave-driver?). Like I have said in the past, I will accept any articles, columns, etc. Please make sure that the article is submitted in machine readable format, no formatting, paging, margin justification, or character enlargement is necessary. In fact, I spend more time reformatting reports than anything else. Try to keep your articles as crudely structured as possible; no dash continuations, lines longer than 80 characters, etc. If you have any questions, call me (Todd Burkey) at 542-1027.

File Name Standardization
By MD

One of the things that can be confusing to the new owner of a disk drive is the meaning of the file extenders on the filenames of disk files. (Not to mention any confusion experienced by experienced disk drive users.) A recommendation in the Waterloo ATARI Users Group newsletter suggests the following;

DAT for data files OBJ for object code
SAB for saved ATARI BASIC LAB for listed ATARI BASIC
SAP saved BASIC A+ LAP listed BASIC A+
SMB saved Microsoft LMB listed Microsoft

plus an etc. for any other obvious three letter extenders. Candidates in the etc. category would be PIR for any pirated code, CBO for Code that Bombs Out, CPC for Copy Protected Code, JAG for code thats primarily Junk And Gargage, etc.

There is also the commonly used SRC for source code and a COM which apparently is the same as OBJ, except that it should for sure be code which can be run using the L or BINARY LOAD item on the DOS menuue, anyway that is the implication I would like to suggest as being standard. (more on files next month).

SIMPLE FORTH GUNFIGHT
by Phil Seifert

This is a gunfight style game I wrote using Valpar's VALFORTH. You will need the Forth Kernel, the Player-Missile package and optionally have the General Utilities package. The reason for the utility package is twofold. One, I like their editor. Two, the stick commands they provide are much faster than the ones in the player missile package.

I won't go into the details of programming in FORTH but let's say that it is a lot of fun and fairly easy if you go in with an open mind. Just remember FORTH uses the RPN system, all numbers must be on the stack before operations are performed, and you build words from other words until your program is all one word. Fascinating, huh?

```
SCREEN #1
CLS 2 BASE 10 PMINIT PMCLR
LABEL PLAYER1
01110000 C,
11110000 C,
01110000 C,
01110111 C,
01111100 C,
01110000 C,
01110000 C,
01111100 C,
==>
SCREEN #2
LABEL PLAYER2
00001110 C,
00011111 C,
00001110 C,
11101110 C,
00011110 C,
00001110 C,
00001110 C,
00111110 C,
0 VARIABLE SCR1
0 VARIABLE SCR2
==>
SCREEN #3
LABEL SHOT1
00011100 C,
LABEL SHOT2
00111000 C,
DCX
0 VARIABLE SHOT1?
0 VARIABLE SHOT2?
: SETUP PMCLR
PLAYER1 8 60 120 0 BLDPLY
PLAYER2 8 190 120 0 BLDPLY
SHOT1 1 0 0 2 BLDPLY
SHOT2 1 0 0 3 BLDPLY
==>
```

```
SCREEN #4
0 4 11 PMCOL
1 7 11 PMCOL
13 DUP 706 C! 707 C!
60 115 40 200 0 PLYBND
125 190 40 200 1 PLYBND
0 DUP SHOT1? ! SHOT2? !
0 DUP SCR1 ! SCR2 !
0 709 C! ;
: SHT1 0 PLYLOC 3 + SWAP 9 +
SWAP 2 PLYPUT ;
: SHT2 1 PLYLOC 3 + SWAP 9 -
SWAP 3 PLYPUT ;
: MOVE 0 STICK 0 PLYMV
1 STICK 1 PLYMV ;
==>
SCREEN #5
: ST1 SHOT1? @ IF 1 0 2 PLYMV
2 PLYLOC DROP NOT IF 0 SHOT1?
! THEN ELSE 0 STRIG SHOT1?
OVER IF SHT1 THEN ! ENDIF ;
: ST2 SHOT2? @ IF -1 0 3 PLYMV
3 PLYLOC DROP NOT IF 0 SHOT2?
! THEN ELSE 1 STRIG SHOT2?
OVER IF SHT2 THEN ! ENDIF ;
==>
SCREEN #6
: POS. 84 C! 85 C! ;
: EX1 0 0 2 PLYPUT 4 0 POS.
SCR1 DUP @ 1+ DUP .
SWAP ! 0 SHOT1? ! ;
: EX2 0 0 3 PLYPUT 32 0 POS.
SCR2 DUP @ 1+ DUP .
SWAP ! 0 SHOT2? ;
==>
SCREEN #7
: GOVER 14 1 POS.
." GAME OVER " CR
OFF PLAYERS 0 752 C! ;
==>
```

```
SCREEN #8
: GUNFIGHT SETUP
60 120 0 PLYPUT
190 120 1 PLYPUT
ON PLAYERS CLS 1 752 C!
8 0 POS.
." GUNFIGHT AT OKEY-DOKEY"
0 DUP SCR1 ! SCR2 !
BEGIN BEGIN HITCLR
MOVE ST1 ST2 ?COL UNTIL
0 ?PXPL IF EX2 ELSE 1 ?PXPL
IF EX1 THEN ENDIF
SCR1 @ 10 = SCR2 @ 10 =
OR UNTIL GOVER ; ==>
SCREEN #9
: RUN BEGIN GUNFIGHT WAIT 0
UNTIL ; ;S
```

Type in this program and save it in screens on the disk. Then load in the player missile package and miscellaneous utilities. Now you load in the game (screen# LOAD). To run, type GUNFIGHT. If you want an infinite loop type RUN and press START after the game is over.

For those of you who do not have VALFORTH or if you have a cassette and want the game, send to me, Phil Seifert, 48 Kelley Road, Chaska, MN 55318, a disk or cassette plus \$2.00 and I will make a bootable version of this to send back to you.

Here are some improvements I can think of: sound, fancier hit routine, and animated players. If any FORTH programmers add this to the program, please let me know what the changes are.

USEFUL DISK INFO
By TRB

Thought I would add the following computer correspondence that was brought to my attention recently. It appears that we disk owners have some side effects to worry about when using certain brands of disks. Note that one of the correspondents is the noted science fiction author Jerry Pournelle.

I am not sure of the actual technical accuracy, but the gist is

AVOID ELEPHANT MEMORY DISKS - THEY WILL SCREW UP
YOUR HEADS.

The disks have a large amount of what I think he called Alumina. Although the disks do not seem to have many errors, they have an interesting side effect. The alumina(?) is used to reduce cost and increase disk reliability, but too much will erode the heads of disk drives. The Elephant disks have too much.

I am trying to get a more specific and accurate description of the problem and will post it as soon as I decipher it.

In the intervening weeks, simply beware of Elephehant memory disks.

```
#5 (24 lines) 12/10/82 16:02 Mailed by: BRL (NETML.Daemon)
Date: 10-Dec-82 02:54:17-PST (Fri)
From: UCBARPA.dag at Ucb-C70 (David Allen Gewirtz)
Subject: Floppy Disk Warning!!!
Message-Id: <8211101054.17653@UCBARPA.BERKELEY.ARPA>
Received: by UCBARPA.BERKELEY.ARPA (3.224 [10/16/82])
id A17649; 10-Dec-82 02:54:20-PST (Fri)
Received: from UCBARPA.BERKELEY.ARPA by UCBVAX.BERKELEY.ARPA
id A03289; 10-Dec-82 02:52:32-PST (Fri)
To: info-cpm at BRL, info-micro at BRL
Via: Ucb-C70; 10 Dec 82 5:55-EST
Via: Brl; 10 Dec 82 6:06-EST
Via: Brl-Bmd; 10 Dec 82 6:19-EST
```

This comes third hand from a materials scientist in Silicon Valley David who is working on hard disk recording methods.

#48 (9 lines) 12/11/82 03:32 Mailed by: BRL (NETML.Daemon)
Date: 11 December 1982 02:53-EST
From: Jerry E Pournelle <POURNE@Mit-Mc>
Subject: Floppy Disk Warning!!!
To: UCBARPA.dag at Ucb-C70
cc: Info-cpm at BRL, Info-micro at BRL
Via: Mit-Mc; 11 Dec 82 2:51-EST
Via: Brl; 11 Dec 82 3:09-EST
Via: Brl-Bmd; 11 Dec 82 3:14-EST

My engineers tell me much the same thing, except that for Atari drives elephant disks are better than Dysans because with Atari the thicker the medium the better; or so say they for reasons that I did not bother to try to understand.

jep

---(48)---

#4 (19 lines) 12/11/82 08:25 Mailed by: BRL (NETML.Daemon)
Date: 11 December 1982 08:36-EST
From: Charlie Strom <CSTROM@Mit-Mc>
Subject: Floppy Disk Warning!!!
To: UCBARPA.dag at Ucb-C70
cc: Info-CPM at BRL
Via: Mit-Mc; 11 Dec 82 8:49-EST
Via: Brl; 11 Dec 82 8:55-EST
Via: Brl-Bmd; 11 Dec 82 9:03-EST

Alumina is aluminum oxide and is used as an industrial abrasive. Floppy disks would use such a material to keep the heads clean I would assume, although too much of it is certainly akin to inserting a floppy sandpaper sheet rather than a diskette! It would be most interesting to learn which vendor uses what it his medium formulation; I am frankly weary of third-hand reports and horror stories re diskettes - if I listened to all of them, there would certainly be no diskette that I could use with complete confidence!
My philosophy to a certain extent is that you get what you pay for, though I doubt one can apply this too rigidly to such a hocus-pocus field as magnetic media. It would be nice if the manufacturers of diskettes (and tapes too for that matter) would stop trying to snow is and come up with some meaningful standard, industry-wide performance specifications. It is not likely that they will.

Charlie

---(4)---

#8 (10 lines) 12/11/82 11:31 Mailed by: BRL (NETML.Daemon)
Date: 11 Dec 1982 1008-EST
From: Andrew Scott Beals <RMS.G.BANDY.MIT-OZ@Mit-Mc>
Subject: Re: Floppy Disk Warning!!!
To: CSTROM at Mit-Mc
cc: UCBARPA.dag at Ucb-C70, Info-CPM at BRL
In-Reply-To: Your message of 11-Dec-82 0931-EST
Via: Mit-Mc; 11 Dec 82 10:10-EST
Via: Brl; 11 Dec 82 10:21-EST
Via: Brl-Bmd; 11 Dec 82 10:39-EST

just goes to show. you usually *do* get what you pay for. maxell makes some of the best mag. med. overall, and the best floppies around. like i've said before, they'll take abuse and not drop data.

-andy

#10 (15 lines) 12/11/82 11:58 Mailed by: BRL (NETML.Daemon)
Date: Saturday, 11 December 1982 11:50-EST
Sender: X-CYRO.MIT-OZ at BRL
From: X.CYRO at Mit-Mc
To: Charlie Strom <CSTROM@Mit-Mc>
Cc: Info-cpm at BRL
Subject: Floppy Disk Warning!!!
In-reply-to: The message of 11 Dec 1982 08:36-EST from Charlie Strom <CSTROM a

t Mit-Mc>

Via: Mit-Mc; 11 Dec 82 11:50-EST
Via: Brl; 11 Dec 82 11:56-EST
Via: Brl-Bmd; 11 Dec 82 11:59-EST

A friend of mine at DEC was responsible for designing the drives and selecting the media for the DEC PCs. He did extensive head wear testing of various diskettes with the following interesting result: Maxell disks had the lowest error rate, but were by far the most abrasive. Dysan and Verbatim Datalife were almost as low in errors, and much less abrasive. (I think he finally picked Datalife, but I'm not sure.) But the point is, watch out for Maxell! (And especially don't mix them with other disks -- a little of the abrasive remains on the heads and will rapidly destroy softer coatings.)

-- Scott

---(10)---

#15 (11 lines) 12/12/82 04:33 Mailed by: BRL (NETML.Daemon)
Date: 12 December 1982 03:01-EST
From: Jerry E Pournelle <POURNE@Mit-Mc>
Subject: Floppy disk Warning!!!
To: CSTROM at Mit-Mc
cc: Info-CPM at BRL, UCBARPA.dag at Ucb-C70
Via: Mit-Mc; 12 Dec 82 3:22-EST
Via: Brl; 12 Dec 82 3:29-EST
Via: Brl-Bmd; 12 Dec 82 3:41-EST

Computro did a number of tests and concluded that DYSAN has least wear and is about as good as any for error-free performance.

DYSAN buys their disks from Scotch (or else from same source as Scotch) but I am told that they do more polishing and quality checking. I am also told that they take all disks from same source, test them, and if they get any soft errors on one side but not other they put the disk out as single-sided...

---(15)---

r 13:49 \$0.50

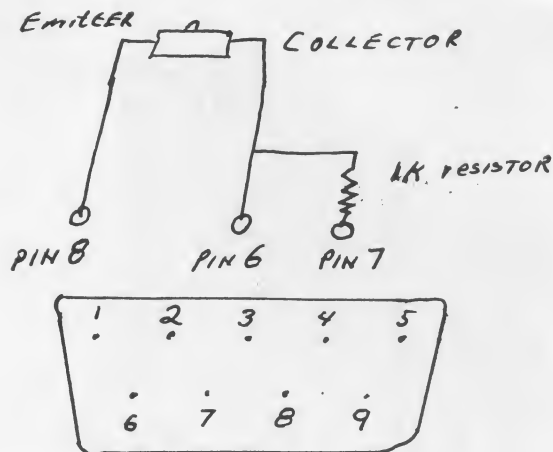
PUT A LIGHT PEN ON YOUR ATARI
by Eric Radius

Compute #27 gave instructions on building a light pen for the Vic-20. Since the two computers use the same controllers, I decided to try building one for my ATARI. It even works -or at least sort of. The light pen is read by peeking the horizontal color clock value (0-227) LPENH 564 and vertical color clock value (0-255) LPENV 565. LPENV does indicate the vertical position of the pen and gives repeatable readings, however LPENH jumps all over.

The light pen connects to pins 6,7,&8 of any controller port as in the drawing. In action a light applied to phototransistor ECG-3038 produces a negative pulse on pin 6. When this happens your computer checks the current location of the electron beam on the screen and stores the value in LPENH and LPENV.

Uses for a light pen include drawing lines, selecting menu items, multiple choice questions or games. The light pen constructed with these instructions works well enough for selecting menu items but needs some refinements for drawing.

Sylvania ECG-3038
Phototransistor



Controller Jack
front view

1. (joystick) Forward Input
2. (joystick) Back Input
3. (joystick) Left Input
4. (joystick) Right Input
5. B Potentiometer Input
6. Trigger Input
7. +5 volts
8. Ground
9. A Potentiometer Input

You Could Have Advertized
In This Space For Only
\$7.50

or
\$15 half page, \$25 full page

SOFT UNLIMITED MAIL ORDER PRICING

MFG	SOFTWARE TITLE	RETAIL	SU PRICE
QS:	6502 DISASSEMBLER (CASS)	11.95	9.00
QS:	6502 DISASSEMBLER	14.95	11.00
QS:	ALI BABA AND THE FORTY THEIVES	32.95	23.50
AH:	ANDROMEDA CONQUEST	23.00	16.50
BR:	APPLE PANIC (CASS)	29.95	21.00
QS:	ASSEMBLER (CASS)	24.95	18.00
SS:	BATTLE OF SHILOH (CASS)	39.95	28.00
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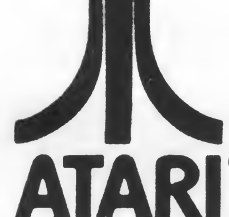
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SWAP MEET - 5:00 P.M.
TAIG - 7:00 P.M.

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